

## IFN- $\beta$ (B-02): sc-57203

### BACKGROUND

The genes encoding type I interferons (IFNs), which include 14 IFN- $\alpha$  genes, one IFN- $\beta$  gene, one IFN- $\omega$  (also known as IFN- $\alpha$  II1) gene and a number of IFN- $\omega$  pseudogenes, are clustered on human chromosome 9. IFN- $\alpha$  and - $\beta$  are cytokines that are widely known to induce potent antiviral activity. They exert a variety of other biological effects, including antitumor and immunomodulatory activities, and are increasingly used clinically to treat a range of malignancies, myelodysplasias and autoimmune diseases. IFN- $\omega$  is antigenically different from human IFN- $\alpha$ , IFN- $\beta$  or IFN- $\gamma$ , but is a component of natural mixtures of IFN species produced by virus-induced leukocytes or Burkitt's lymphoma cells. The type I interferon receptor (IFN- $\alpha$ R) interacts with IFN- $\alpha$ , IFN- $\beta$  and IFN- $\omega$ , and seems to be a multisubunit receptor.

### REFERENCES

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7. Siren, J., et al. 2005. IFN- $\alpha$  regulates TLR-dependent gene expression of IFN- $\alpha$ , IFN- $\beta$ , IL-28, and IL-29. *J. Immunol.* 174: 1932-1937.
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### CHROMOSOMAL LOCATION

Genetic locus: IFNB1 (human) mapping to 9p21.3.

### SOURCE

IFN- $\beta$  (B-02) is a mouse monoclonal antibody raised against IFN- $\beta$  of human origin.

### PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

### STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### APPLICATIONS

IFN- $\beta$  (B-02) is recommended for detection of IFN- $\beta$  of human origin by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with IFN- $\alpha$  or  $\gamma$ .

Suitable for use as control antibody for IFN- $\beta$  siRNA (h): sc-39603, IFN- $\beta$  shRNA Plasmid (h): sc-39603-SH and IFN- $\beta$  shRNA (h) Lentiviral Particles: sc-39603-V.

Molecular Weight of IFN- $\beta$ : 20 kDa.

### RESEARCH USE

For research use only, not for use in diagnostic procedures.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.